

Appl. No.: 10/662,630
Amdt. dated 08/09/2005
Reply to Office action of May 16, 2005

REMARKS/ARGUMENTS

In light of the amendments to the claims presented herein and the following remarks, reexamination and reconsideration of this application, withdrawal of the rejections, and formal notification of the allowability of all claims as presented are earnestly solicited. As detailed in the Office Action mailed May 16, 2005, Claims 1-14 are pending, wherein Claims 1-14 have been rejected. In response to the Office Action, Claims 1 and 8 have been amended. New Claims 15-18 have also been added. The amendments to the claims, as well as the new claims, find support throughout the Specification and the Drawings and no new matter has been added. Accordingly, it is believed that the claims now define patentable subject matter over the prior art cited in the Office Action and notice to such effect is requested at the Examiner's earliest convenience.

Claim Rejections – 35 U.S.C. §102

Claims 1, 2, 8, and 9 were rejected in the Office Action as being anticipated by DE 43 04 128 to Valli. The Applicant traverses these rejections. However, the Applicant has amended Claims 1 and 8 to further clarify the subject matter being claimed.

More particularly, Claims 1 and 8 have been amended to recite a grinding element that comprises a fastening frame having a first surface configured to operably engage the frame of the grinder stone and an opposed second surface. A fastening device is configured to operably engage the fastening frame and to secure the fastening frame to the frame of the grinder stone. A plurality of grinding segments, each defining an area smaller than the second surface of the fastening frame and being comprised of a ceramic grinding material, are fastened to the fastening frame with a bonding agent disposed between the grinding segments and the second surface so as to secure the grinding segments to the second surface. The grinding segments thus cooperate to substantially cover the second surface of the fastening frame and to form at least a portion of a grinding surface of the grinder stone.

In contrast, the '128 reference is directed to a grinding wheel constructed from segments (2) of abrasive material which are fastened to a core (1a). Each segment (2) consists of an outer

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element (3) which is made of ceramic material. The outer element (3) is attached by means of an adhesive element (5) made of concrete to a metal underplate (4) which is fastened to the core element (1a) by a screw (6). The core element (1a) has a polygonal cross-section and when all the segments are attached they form a grinding wheel. The centrifugal force generated by the ceramic element (3) is transmitted to the core (1a) through the adhesive element (5) and the metal plate (4). The grinding wheel is thus provided with replaceable ceramic abrasive elements, where the centrifugal force is resisted by the concrete adhesive element and the metal plate.

To anticipate a claim, the reference must teach every element of the claim (MPEP §2131). In this regard, the '128 reference discloses that each segment (2) fastened to the core (1a) includes **only a single outer element (3)**. That is, the '128 reference discloses a grinding segment that includes a monolithic grinding element. Such a grinding segment is characterized as "prior art" in the present invention such as, for example, on Page 5, lines 15-26. However, Claims 1 and 8, as amended, particularly and explicitly require a grinding element to include **a plurality of grinding segments, wherein each grinding segment defines an area smaller than the second surface of the fastening frame and the grinding segments cooperate to substantially cover the second surface of the fastening frame** to form at least a portion of a grinding surface of the grinder stone.

The Specification of the present invention particularly states that, since the individual grinding segments are smaller (in area) than the fastening frame to which such grinding segments are attached in an individual grinding element, each grinding segment will thus experience a lower centrifugal force as the grinder stone is rotated (Page 3, lines 23-25), as compared to a prior art grinding element having a monolithic grinding segment, such as that disclosed by the '128 reference. Further, the smaller individual grinding segments as described and claimed in the present invention are easier to manufacture and, when formed from a ceramic material, experience lower stresses during firing (Page 3, lines 25-27), as compared to a prior art grinding element having a monolithic grinding segment, such as that disclosed by the '128 reference. The Specification of the present invention further proceeds to note that the change in temperature of the grinding surface of the grinder stone, and the resulting stresses, can be better controlled using the smaller individual grinding segments (Page 3, lines 28-29), as compared to a prior art

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grinding element having a monolithic grinding segment, such as that disclosed by the '128 reference.

Accordingly, the Applicant submits that the '128 reference does not teach or suggest a grinding element including a plurality of grinding segments, wherein each grinding segment defines an area smaller than the second surface of the fastening frame and the grinding segments cooperate to substantially cover the second surface of the fastening frame to form at least a portion of a grinding surface of the grinder stone. These requirements are particularly stated in Claims 1 and 8 of the present invention and, since there is no identity between Claims 1 and 8, now pending, and the '128 reference (i.e., Claims 1 and 8 are not disclosed by the '128 reference), the Applicant submits that Claims 1 and 8 are not anticipated by the '128 reference. As such, Claims 1 and 8, and Claims 2 and 9 which depend respectively therefrom, are patentable over the '128 reference, and the Applicant respectfully requests withdrawal of these rejections.

Claim Rejections – 35 U.S.C. §103

Claims 3, 5-7, 10, and 12-14 were rejected in the Office Action as being obvious over the '128 reference. In addition, Claims 4 and 11 were rejected in the Office Action as being obvious over the '128 reference in view of DE 34 13 890 to Saerkelae. New Claims 15-18 have been added, wherein Claims 15 and 17 are directed to a single fastening device for fastening each fastening frame of a grinding element to the frame of the grinder stone (as shown, for example, in FIG. 4); and Claims 16 and 18 are directed to the grinding segments being arranged in a staggered pattern on the second surface of the fastening frame (as shown, for example, in FIG. 4, and described on page 6, lines 9-13 of the Specification). As such, no new matter has been added.

As previously discussed, Claim 1, upon which Claims 3-7, 15, and 16 depend, and Claim 8, upon which Claims 10-14, 17 and 18 depend, are not anticipated by the '128 reference. Thus, in response, the Applicant further submits that the present invention, as claimed in Claims 3-7, 10-14, and 15-18, is patentable over the '128 and '890 references. As such, the Applicant respectfully requests withdrawal of these rejections.

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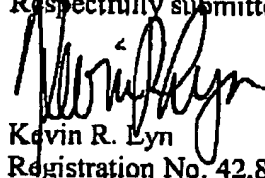
Conclusion

In summary, the '128 and '890 references do not teach, suggest, or provide motivation for embodiments of the present invention, as claimed in Claims 1 and 8. Accordingly, in view of these differences between the Applicant's invention and the '128 and '890 references, it is submitted that the present invention, as defined by the pending claims, is patentable over the prior art cited in the Office Action. As such, Claims 1-18 are believed to be in condition for immediate allowance.

In conclusion, for the reasons set forth above, the Applicant submits that all claims now pending are in condition for immediate allowance. Accordingly, notice to such effect is respectfully requested at the Examiner's earliest opportunity.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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8/9/05
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